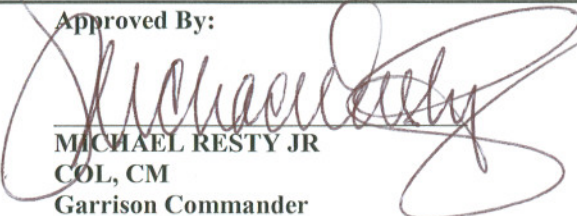


IMNW-CAR-ZA (5) SEMS Implementation Plan Version 1.1

Fort Carson SEMS Implementation Plan			
Document Owner:		Approval:	
Fort Carson SEMS Management Representative (SEMSMR)		Garrison Commander	
Update Requirements:			
This plan is a controlled document and will be maintained in the SEMS document control system. It will be reviewed at a minimum of annually until implementation is completed. This document and its revisions shall remain in place until full implementation of the SEMS. A log of document history must be maintained with this procedure.			
Revision Information			
Status	Revision	Effective Date	Revision Summary
Baseline Plan	1.0	30 Sep 04	None
Revision	1.1	28 Nov 05	Updated to current status
Management Review Requirements			
This plan must be a component of all Fort Carson SEMS Management Reviews until SEMS implementation is completed and must be reviewed at least annually.			
References			
<ul style="list-style-type: none"> a. Executive Order 13148, <i>Greening the Government through Environmental Leadership</i>. b. <i>Fort Carson SEMS Manual</i>, 3 May 2004. c. <i>Fort Carson SEMS Gap Analysis</i>, August 2003. d. ISO 14001: 1996, <i>Environmental Management Systems – Specification with Guidance for Use</i>. e. Memorandum for Assistant Chief of Staff for Installation Management, from Raymond J. Fatz, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), OASA (I&E), Subject, Army Environmental Management System, July 13, 2001. f. Memorandum for Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), from John P. Woodley, Jr., Assistant Deputy Under Secretary of Defense (Environment), Subject, Environmental Management System (EMS) Implementation Criteria and Metrics, January 30, 2003. g. <i>U.S. Army Environmental Management System Implementer's Guide</i>, Version 1.1, January 2004. 			

Approved By:


MICHAEL RESTY JR
COL, CM
Garrison Commander

Date:

28 Nov 2005

Sustainability and Environmental Management System Implementation Plan

30 September 2004
Revised 28 November 2005



Submitted By:

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1.0 BACKGROUND:

Executive Order (EO) 13148, "Greening the Government Through Leadership in Environmental Management" established a 2005 Environmental Management System (EMS) implementation goal for all federal facilities. The Department of Defense (DOD) also requires an EMS to be implemented at all of its facilities through DOD Memorandum 5 Apr 2002 by E. C. Aldridge, Jr., Undersecretary of Defense. Fort Carson will develop its EMS based on the International Organization for Standardization (ISO) 14001 Standard and the principles of sustainability adopted during the first Installation Sustainability Conference in Sep 2002.

A Sustainability and Environmental Management System (SEMS) is defined as "The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the sustainability and environmental policy and supporting continual improvement." The "Sustainability" in SEMS is the strategic planning principle that will support the Installation's continued ability to remain well postured to train and equip soldiers, develop future leaders, grow Army families, and remain a committed community partner now and into the future. The consideration for economic, social and environmental impacts at the core of sustainability fully supports Fort Carson's vision of providing combat-ready forces for the 21st Century Combatant Commander and Joint Team.

2.0 PURPOSE:

This plan is designed to describe the Commander's strategy for combining sustainability and environmental management systems, and in the process meet the following requirements:

2.0.1 To comply with DOD's EMS implementation policy that requires all installations to "complete a written EMS implementation plan".

2.0.2 To establish and maintain a plan that details the key actions required for Fort Carson to satisfy the implementation requirements of E.O. 13148, Army/DOD policy and ISO 14001. It will include the scope for implementation, key actions required as determined by the gap analysis, defined milestones, available resources, and organizational responsibilities for implementing a mission-focused, ISO 14001-conformant EMS. Due to Fort Carson's extensive Sustainability Program already in place, the Installation made the decision to include Sustainability in the EMS process, thereby creating a Sustainability and Environmental Management System (SEMS).

2.0.3 To meet the intentions of an SEMS, which are to improve operational efficiency, create better access to capital, ensure continued ability to operate within the requirements of environmental and other laws, continually enhance the Installation's attractiveness to new personnel, and provide avenues for cooperation with stakeholders. Sustainability requires that the SEMS is

operated in a manner that considers social progress to improve the lives of all stakeholders, effectively protects the environment, ensures prudent use of all resources, and maintains high and stable levels of economic growth and employment.

3.0 SCOPE OF SEMS IMPLEMENTATION:

Fort Carson is included on the Army's "appropriate facility listing" for EMS implementation. As such, SEMS implementation will encompass the entire installation, but it will also involve externalities in recognition that Fort Carson is part of a larger system and community. The SEMS implementation requirements in this plan apply to all installation missions, facilities, tenants, contractors and activities. The surrounding communities, regulators and other interested parties will be notified of the installation's SEMS efforts and encouraged to become participants in and/or contributors to the process.

This plan should allow Fort Carson to build on what it has, take a flexible approach to SEMS completion, and reduce duplication and waste by determining how all the elements fit together. The scope and breadth of this Implementation Plan is to provide many details for how to develop the SEMS; however, specific documentation shall be added as attachments or included in the SEMS documentation system. Key actions from this plan are not all-inclusive. The SEMS must be continually updated to provide a prescriptive program that standardizes all processes eventually.

4.0 GAP ANALYSIS RESULTS:

A gap analysis (Appendix 1) was conducted to determine the extent to which existing installation policies, standard operating procedures (SOPs), environmental programs and related document/records systems conform to the applicable elements of the ISO 14001 standards. The results of this analysis were reported to the Garrison Commander. They were also used as a guide by the Garrison Commander (the Installation SEMS Management Representative) and the Environmental Quality Working Group (the Installation Cross Functional Team) for developing the Fort Carson SEMS Implementation Plan.


Based on an analysis of the findings, the Fort Carson Environmental Program does not fulfill several requirements of a conforming ISO 14001 EMS. A summary of the Fort Carson SEMS gap analysis findings and observations, including a qualitative ranking against the ISO 14001 EMS Standard, is provided in Table 1 beginning on the following page.

5.0 KEY ACTIONS TO BE COMPLETED:


Key areas of enhancement necessary for full conformance to prescribed EMS guidelines are included in Table 1 below.

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Table 1. Actions Needed, Sorted by SEMS Element

SEMS Element	Purpose	Key Actions/Activities	Results - Outcomes (♦) and Outputs (☑)	Gap Analysis Summary Evaluation
Leadership, Vision, Commitment and Policy	To define the vision for sustainability and ensure leadership support, raise awareness of sustainability issues and how they may affect the Installation's future ability to train combat-ready forces; to ensure that Fort Carson (FC) supports moving towards sustainability.	<ul style="list-style-type: none"> ♦ Formulate a business case for sustainability ♦ Senior and Mid-level Commanders, NCOs and Managers must be made aware of the vision, mission and sustainability policy and leadership opportunities on a continual basis ♦ Communicate the sustainability policy to all FC personnel and external stakeholders and open/maintain dialog with them on impacts and approaches ♦ Secure sufficient top-level management understanding and commitment to integrate sustainability and stakeholder engagement into core processes and decision-making ♦ Align and integrate sustainability vision, mission and policy with FC strategic and action plans 	<ul style="list-style-type: none"> ☑ Internal business case for sustainability articulated and distributed ☑ Documented awareness raising and training events plan and schedule for FC leadership ☑ Overall organizational communication strategy and plan ☑ Consultation process and communication plan for external stakeholders with key stakeholders identified and engaged and including a process for handling feedback ♦ ESC level/senior management champion secured ♦ Leadership demonstrated internally and externally ♦ Adequate resources secured to proceed with the implementation process, including project investments ☑ FC strategic plan that incorporates and aligns sustainability goals with long-term strategy and development and annual action plans 	

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SEMS Element	Purpose	Key Actions/Activities	Results - Outcomes and Outputs	Gap Analysis Summary Evaluation
Planning	To determine current sustainability performance, legal requirements and FC commitments, identify and prioritize key sustainability issues, and formulate tactical short-term action plans to support the Installation Sustainability Goals and Installation Strategic Plan.	<ul style="list-style-type: none"> ◆ FC must develop significance criteria and methodologies to identify, evaluate and prioritize the management of aspects, impacts and outcomes (actual and potential) ◆ The environmental and social aspects and impacts of FC activities must be determined ◆ FC must develop strategies and processes to ensure future legal and regulatory compliance and compliance improvement ◆ FC needs a procedure for setting environmental, social and economic goals that address the Installation's significant impacts once they are defined ◆ FC requires a procedure to communicate and report organizational aspects, impacts and outcomes to relevant internal and external stakeholders, possibly including stakeholder advisory board ◆ FC must integrate policy, strategic, management, and annual action plans to reflect desired sustainability goals, objectives and targets and 	<ul style="list-style-type: none"> ✓ Process mapping/activity identification procedure ✓ Written procedure for identifying the environmental and social aspects, impacts and significance of FC activities and for keeping the information up-to-date ◆ Prioritized aspects, impacts and outcomes, including significance criteria ✓ Process for managing and updating legal, regulatory and other relevant knowledge ✓ Written process for setting objectives and targets taking into account significant aspects, legal requirements, stakeholder input, and other critical factors ◆ Agreed upon objectives, targets and performance indicators and measures, along with an identified list of personnel /positions responsible for monitoring and recording progress against them ✓ Documented process for reporting significant aspects, impacts and outcomes to stakeholders and mechanisms for receiving and handling feedback 	

		<p>a means to measure performance</p> <ul style="list-style-type: none"> ◆ Agree on roles and responsibilities for specific management programs ◆ FC must analyze the current business culture and any change required to achieve the organizational vision and strategy ◆ FC needs to identify opportunities where the organization can influence external bodies and create a more positive enabling environment for sustainability ◆ FC must plan, program, and budget funds for sustainability activities and projects. 	<ul style="list-style-type: none"> ✓ Documented process and format for the management of aspects, impacts and outcomes, including flow chart or table showing roles, responsibilities, and time frames for achievement ✓ Written, tiered strategic, management, action and individual job performance planning process that addresses strategies and initiatives specific to significant aspects, impacts and measurable, desired outcomes ◆ Strategic Plan with clearly defined roles, responsibilities and authority for implementing strategic plans, including financial or other performance incentives where feasible ◆ Action Plans that underpin the strategic plan, significant aspects, impacts and outcomes and the short-term delivery of the FC vision, mission and operating principles; with funding and other resources required to implement clearly identified ✓ Organizational charts clearly illustrating the roles, responsibilities, reporting and communication lines and 	
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			<p>authority to deliver and manage the Installation management programs</p> <ul style="list-style-type: none"> ◆ Prioritized, established and documented management programs and their alignment to vision, mission, strategies, objectives and targets ☑ Report and recommendation on requirements for cultural change, including changes in organizational structure, policies and management and operational practices ☑ Opportunity assessment for influencing external stakeholders to practice sustainability 	
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SEMS Element	Purpose	Key Actions/Activities	Results - Outcomes and Outputs	Gap Analysis Summary Evaluation
Implementation and Operation (Delivery)	To improve performance by delivering sustainability strategies and associated action plans. To align management programs and planning with Fort Carson's Sustainability Vision and to ensure that identified actions, impacts and outcomes are managed and appropriate internal controls are in place.	<ul style="list-style-type: none"> ◆ FC has designated a specific management representative and CFT for SEMS development and implementation, but must still define roles, responsibilities or authorities for the operating management system and sustainability responsibilities for managers, contractors, and all personnel positions ◆ FC must develop SEMS training, awareness and competence programs ◆ FC must have means of communicating with internal stakeholders about various aspects of the SEMS and benefits of sustainability ◆ FC must have communication procedures for receiving, documenting and responding to external communication ◆ FC must have procedures for involving external stakeholders in the SEMS ◆ FC must have communication strategies that involve internal customers - visitors, family members, retirees and other FC users ◆ FC needs to address the applicability and 	<ul style="list-style-type: none"> ☑ Establish and maintain written procedures to ensure Installation employees understand and adhere to sustainability and environmental management policy, procedures and the requirements of the management system ☑ Document job responsibilities for environmental and sustainability personnel throughout the Installation ☑ Assign and document SEMS roles ◆ Modify job descriptions and/or performance objectives to include sustainability performance expectations ◆ Include sustainability in Individual Development Plans (IDP) or other documented training plan ☑ Develop/Adapt tailored training programs to fit FC needs, including a training documentation process ☑ Learning/Training needs analysis ☑ Performance indicators and measures to assess the effectiveness of awareness-raising/training programs ◆ Objective evidence that awareness of sustainability 	

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		<p>procedures for communicating pertinent SEMS elements in supply, service and construction contracts</p> <ul style="list-style-type: none"> ◆ FC must have procedures for controlling all documents required by the SEMS, including documentation of the management system itself probably in the form of networked software ◆ FC must evaluate and select software for the SEMS ◆ FC must update its regulations and other procedures to ensure operations and activities associated with significant environmental, social, and economic aspects are controlled ◆ FC must develop supply chain management, evaluation and partnership approaches 	<p>issues has been raised (e.g. workshop attendance records, references to sustainability in FC publications, staff interviews, etc)</p> <ul style="list-style-type: none"> ☑ Written communication plan for internal and external stakeholders - regulators, regional planners, citizens, visitors, contractors, military families and retirees, etc. ☑ Evaluate and purchase SEMS software to meet the Installation's management system needs, including document control and record keeping ☑ Complete a supply chain report, including coverage of supply chain risk, critical issues, opportunities for supply chain driven performance improvement, any additional training and awareness requirements, identify opportunities to influence supplier behavior and performance, partnership opportunities with suppliers, e.g. involving suppliers in product design issues, etc. 	
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SEMS Element	Purpose	Key Actions/Activities	Results - Outcomes and Outputs	Gap Analysis Summary Evaluation
Checking and Corrective Action (Monitor, Review)	To check that progress is improving and communicate results. Progress must be monitored against stated values, strategies, performance objectives and targets. Update long-term sustainability goals as appropriate.	<ul style="list-style-type: none"> ◆ FC must track sustainability and environmental performance at the Installation and facilitate management review of results ◆ FC must have a documented procedure for managing and tracking calibration of measuring equipment ◆ FC must establish and maintain procedures for addressing non-conformances, mitigating environmental and social impacts, tracking corrective and preventive actions, and evaluating effectiveness ◆ FC must develop and implement a root-cause analysis process and means to communicate lessons learned to the FC community ◆ FC must develop and implement procedures for identification, maintenance and disposition of SEMS-related records in compliance with the ARIMS program ◆ FC must maintain a robust sustainability and environmental audit program 	<ul style="list-style-type: none"> ✓ Written, standardized procedure for tracking sustainability and environmental performance, including management measures sometimes referred to as a Dash Board ✓ Written equipment calibration and documentation procedures ✓ Written corrective and preventive action procedures, including a means of tracking completion of corrective actions, their effectiveness, and a follow-on process for updating regulations and standard procedures in order to document operational changes and prevent future non-conformance ✓ Root-cause analysis process to prevent recurrences of non-conformances with the SEMS as well as with compliance requirements and a means of communicating lessons learned ✓ Written procedure for records, including training records and audit/review results ✓ Environmental 	

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			Performance Assessment System integrated with the SEMS as the FC audit program, expanding the process to incorporate the social elements of sustainability	
SEMS Element	Purpose	Key Actions/Activities	Results - Outcomes and Outputs	Gap Analysis Summary Evaluation
Management Review (Continuous Improvement, Review, Report)	To provide top level management with results and allow for decision-making that will enhance continual improvement.	<ul style="list-style-type: none"> ♦ FC must develop, implement and document procedures for top management review, including a review of high-level management measures, audit findings, and a general review of the management system ♦ FC must develop procedures and schedule for communicating the report/results to stakeholders 	<ul style="list-style-type: none"> ✓ Written procedure integrated with existing processes where possible for management review of sustainability progress and the status of the SEMS ♦ Collation of data for reporting purposes (including performance measures and indicators for significant impact) ♦ Specification for reporting, including media and delivery mechanisms ♦ Completed, documented and approved management reviews with visibility to all stakeholders ✓ Review schedule and list of participants ✓ Process for creating and distributing reports 	○



Full Conformance



Substantial Conformance



Partial Conformance



Nominal Conformance

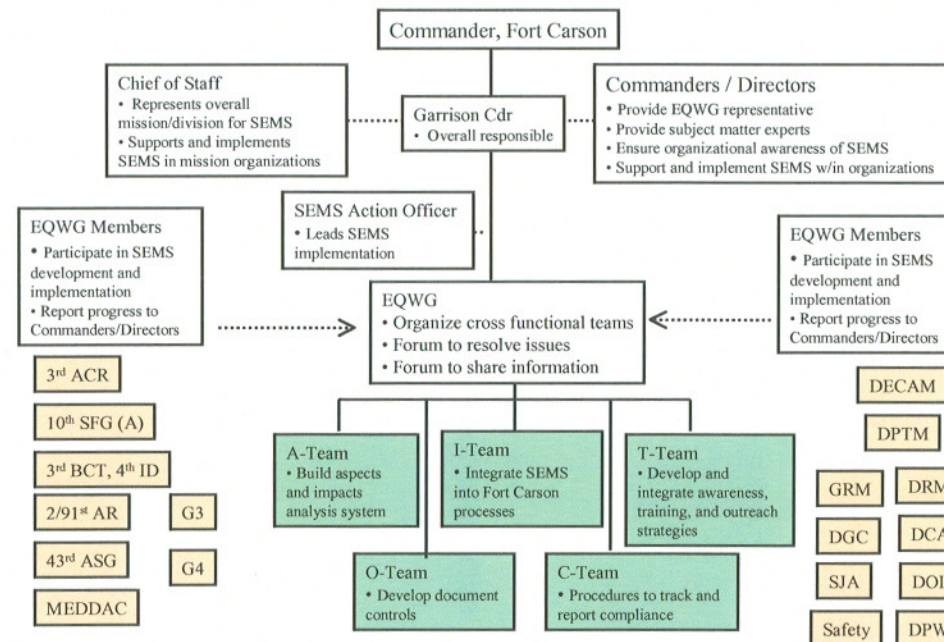


Non-Conformance

Although, not prescribed by Army policy or ISO 14001, Fort Carson will develop and maintain a detailed project schedule that includes all of the major tasks and sub tasks required for successful implementation. The schedule will include anticipated performance dates and required resources. The Implementation Plan and schedule will be a fluid, working document maintained by the EQWG in coordination with the GC and/or Fort Carson Command.

6.0 ROLES AND RESPONSIBILITIES:

Roles and Responsibilities – SEMS Implementation



6.0.1 Garrison Commander (GC) and Chief of Staff (CS): The GC has overall responsibility for the implementation of the SEMS. The GC has delegated authority to the designated SEMS Action Officer for executing the process. The GC and CS will be actively involved in management reviews and approval of SEMS programs through the management review process and/or the Fort Carson Chain of Command.

6.0.2 SEMS Management Representative (SEMSMR): The SEMSMR will manage and oversee the SEMS implementation effort with overall responsibility for ensuring its implementation. The GC is the SEMSMR.

6.0.3 SEMS Action Officer: The Action Officer is responsible for organizing and leading the Environmental Quality Working Group, a Cross Functional Team (CFT). The Action Officer also will ensure that all activities needed to develop the SEMS are accomplished. The SEMS Action Officer is the Deputy Director, DECAM.

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6.0.4 Environmental Quality Working Group (EQWG): The EQWG will provide installation-wide oversight and support to the SEMS implementation effort. Their responsibilities are to gather, organize, and disseminate information; develop SEMS procedures; and advise, coordinate, facilitate, and monitor SEMS implementation; and perform the gap analysis. Specifically, the EQWG will develop procedures using other CFTs that include subject matter experts or in some cases, a single organization or individual may be responsible for developing a procedure or approach (Appendix 2 and 3). The EQWG will meet with the GC to discuss SEMS issues to include SEMS implementation efforts, results from the gap analysis, and review and revise the environmental policy statement.

6.0.5 Commanders, Garrison, Tenant, and Activity Directors (Commanders/Directors): Commanders/Directors of organizations noted above will provide a representative to the EQWG. When technical representatives or subject matter experts (SMEs) are needed for SEMS development or implementation, Commanders/Directors will assign individuals to participate. Technical representatives or SMEs from contractors on post will also be involved in the process. Commanders/Directors will ensure that modifications to contract work specifications are implemented as needed. In addition, Commanders/Directors will be responsible to ensure that all members of the unit and/or organization will be made aware of sustainability, SEMS implementation and system procedures.

6.0.6 Installation Personnel: Installation personnel will be responsible for implementing SEMS programs. They will provide the essential, ground-floor level information that directs SEMS priorities and carry out the initiatives to comply with environmental laws, reduce mission/environmental impacts and to achieve conformance with ISO 14001 standards. Installation personnel will notify their superiors of any environmental issues or concerns relating to their programs, so they can be brought to the attention of the EQWG or Chain of Command for review and action.

6.0.7 Contractor Support: A firm or not-for-profit organization will be contracted to provide overall SEMS implementation support. Contractor personnel will facilitate overall SEMS implementation to include providing initial awareness training, document control and overall organizational support. Their support is required through at least FY06.

6.0.8 Family Members and other interested parties including external stakeholders will be encouraged to participate in the development and implementation of SEMS at Fort Carson.

7.0 RESOURCING IMPLEMENTATION:

7.0.1 Initial Implementation Funding. Fort Carson already has many of the elements of an SEMS in place. However, initial implementation funding requirements to integrate these elements into a formal SEMS have been identified and programmed through the Environmental Program Requirements (EPR) system (Reference page III-13 of the current *EPR Policy and Guidance*, Feb 2002). Program Budget Guidance (PBG) has been given to Fort Carson providing for environmentally appropriated funding in the amounts of 200.0K in FY04, 150.0K in FY05 and 40.0K in FY06 (estimated). Since implementation funding is limited to these years, Fort Carson will focus on completing implementation efforts by the end of FY06. Initial implementation funding will cover the contractor and training support in FY04 - FY06. Environmental funding will not be anticipated beyond FY06.

EPR #	Project Title	FY04 (Funded Amt, \$000)	FY05 (Programmed Amt, \$000)	FY06 (Programmed Amt, \$000)	FY07 (Programmed Amt, \$000)	FY08 (Programmed Amt, \$000)	FY09 (Programmed Amt, \$000)
FTC001F007	Program Management Support (EMS)	\$270.0	\$400.0K	\$400.0K	\$400.0K	\$400.0K	\$400.0K
FTC001F008	EMS Training	\$30.0	\$90.0	\$90.0K	\$95.0K	\$100.0K	\$100.0K
FTC001F009	Audit EMS	\$0.0	\$35.0K	\$0.0K	\$35.0K	\$0.0K	\$35.0K

7.0.2 Sustainment Funding. Beyond FY06, funding requirements for SEMS maintenance will be derived from the Installation base operations (BASEOPs) account. Continuation funding will be required to cover consultant support, software upgrades and training, and perhaps sustainability and environmental training. The EQWG and CFTs will continually evaluate sustainability funding and other resource needs throughout the SEMS development phase. Programming, budgeting and funding for sustainability projects and initiatives will be critical to successful achievement of objectives and targets. Recommendations for generating funds, creating new or modifying existing processes to support sustainability requirements will be generated by the EQWG.

7.0.3 Internal Labor Requirements. A full time position for the SEMS will be considered in the Garrison organization beginning in FY06. This position will be focused on SEMS implementation across the installation through FY09. It is expected that this position will continue in a sustainment mode indefinitely. Other requirements to be considered in the development of SEMS include internal support for recurring sustainability and environmental training; document control and record keeping; sustainability planning; and sustainability engineering.

7.0.3.1 In addition, the EQWG members will each spend approximately 100-200 hours per year over FY04-FY06. They will spend this time serving as SEMS experts and representatives for the various functional areas, developing procedures, assisting with training, etc. After initial implementation is completed, their labor requirements will decrease significantly to approximately 60 hours per year in a sustainment mode.

7.0.3.2 Although everyone on the installation will use the SEMS, the labor requirements for development and implementation will be borne primarily by the GC, DECAM, EQWG members, and subject matter experts.

8.0 IMPLEMENTATION SCHEDULE AND MILESTONES

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Although the Army does not require full conformance to the ISO 14001 Standard until FY09, Fort Carson has established a goal of full implementation of an EMS incorporating sustainability by 31 Dec 05. Table 2 below includes applicable Fort Carson implementation milestones. Recurring management reviews will monitor implementation progress against these milestones.

Table 2: Implementation Milestones

Fort Carson Target	Fort Carson Implementation Milestones
NLT July 1, 2003	Begin Implementation - Identification of SEMS Management Representative and Cross Functional Team. <i>(Completed, Fort Carson Metric)</i>
NLT September 30, 2003	Develop an ISO 14001–conformant environmental policy statement, consistent with the Army EMS action memorandum, signed by the Commander <i>(Completed, DOD Metric)</i>
NLT March 30, 2004	Complete an installation-wide EMS self-assessment with appropriate documentation, signed by the Commander. <i>(Completed, DOD Metric)</i>
NLT September 30, 2004	Complete a written SEMS implementation plan with defined dates, identified resources, and organizational responsibilities for implementing a mission-advancing, ISO 14001–conformant EMS, signed by the Commander. <i>(Completed, DOD Metric)</i>
NLT March 30, 2005	Compile a prioritized list of environmental aspects. <i>(DOD Metric)</i>
NLT March 30, 2005	Provide awareness-level briefings on the Army’s EMS to all appropriate installation personnel. <i>(DOD Metric)</i>
NLT September 30, 2005	Complete identification of installation wide objectives and targets. <i>(Fort Carson Metric)</i>
NLT December 31, 2005	Complete at least one management review in accordance with the installation’s documented policy for recurring internal EMS management reviews. <i>(DOD Metric)</i>
NLT December 31, 2005	Full conformance with the ISO 14001 standard. <i>(Fort Carson Metric)</i>
NLT September 30, 2009	Full conformance with the ISO 14001 standard. <i>(DOD Metric)</i> Note: Fort Carson does not intend to pursue third party registration at this time.

A summary of activities, timeframes and resources for SEMS implementation are listed in Table 3. A more detailed project schedule of activities, steps/tasks, start and completion dates, and resources will be maintained by the DECAM in consultation with the EQWG. Table 4 sorts SEMS implementation activities by completion dates. The completion dates take into account the Army implementation milestones and Fort Carson's desire to have a conforming SEMS by 31 Dec 05. The SEMS Action Officer will maintain an updated list of team members, SEMS Activities and current status.

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Table 3. SEMS Elements/Activities, Responsibilities, Start and Completion Dates

SEMS Element/Activities	Responsible Organization/Position	Start Date	Completion Date
LEADERSHIP, VISION, COMMITMENT AND POLICY			
Formulate a mission support (business) case for sustainability	EQWG Team	15 Jun 04	15 Sep 04
Create awareness program for FC leadership	EQWG Team	15 Jun 04	30 Sep 04
Implement awareness program for FC leadership followed by maintenance steps	TBD	1 Oct 04	Quarterly
Communicate the sustainability policy to all FC personnel and external stakeholders and open/maintain dialog with them on impacts and approaches followed by maintenance steps	DECAM	1 Sep 04	30 Sep 04
Secure sufficient top-level management understanding and commitment to integrate sustainability and stakeholder engagement into core processes and decision-making followed by maintenance steps	EQWG	1 Oct 04	30 Mar 05
Align and integrate sustainability vision, mission and policy with FC strategic plan and action plans followed by maintenance steps	SPPO	1 Oct 04	30 Dec 05
PLANNING			
Develop significance criteria and methodologies to identify, evaluate and prioritize the management of aspects, impacts and outcomes	EQWG Team	15 Jun 04	15 Sep 04
Develop procedures for identifying environmental and social aspects, impacts and significance of FC activities and for keeping the information up-to-date	EQWG Team	15 Jun 04	15 Sep 04
Implement the aspect, impact, significance procedure in order to have a prioritized list of aspects by 30 Mar 05 followed by maintenance steps	TBD	1 Oct 04	30 Mar 05
Develop strategies and processes to ensure future legal and regulatory compliance and compliance improvement	EQWG Team	1 Nov 04	30 Dec 04
Implement process for ensuring legal and regulatory compliance and compliance improvement followed by maintenance steps	TBD	2 Jan 05	2 Feb 05
Develop/Modify a procedure for setting environmental, social and economic goals/objectives that address the Installation's significant impacts once they are defined	EQWG Team	2 Jan 05	30 Mar 05
Implement process for setting objectives and targets by 30 Sep 05 followed by maintenance steps	TBD	1 Apr 05	30 Sep 05
Develop a procedure to communicate and report organizational aspects, impacts and outcomes to relevant internal and external stakeholders (tracking and reporting procedures)	EQWG Team	1 Nov 04	28 Feb 05
Implement communication and reporting procedure followed by maintenance steps	TBD	1 Mar 05	30 Apr 05
Develop a procedure to integrate policy, strategic, management and annual action plans to reflect desired sustainability goals, objectives and targets, means to measure performance, responsibilities, and milestones/completion dates	EQWG Team	1 Oct 04	29 Nov 04
Implement procedure to integrate plans followed by maintenance steps	TBD	1 Dec 04	28 Feb 05
Agree on roles and responsibilities for specific management programs	Cmd Grp w/ Commanders/Directors	1 Oct 04	30 Dec 04
Analyze the current business culture and any change required to achieve the organizational vision and strategy	EQWG Team	1 Dec 04	31 Jan 05
Implement strategies to align culture with organizational vision and strategy followed by maintenance steps	TBD	1 Feb 05	30 Mar 05

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Identify opportunities where the organization can influence external bodies and create a plan to foster a more positive enabling environment for sustainability	EQWG Team	1 Apr 05	30 Jun 05
Implement plan to influence sustainability followed by maintenance steps	TBD	1 Jul 05	30 Sep 05
IMPLEMENTATION AND OPERATION			
Define roles and responsibilities for SEMS implementation	EQWG	15 Jun 04	30 Sep 04
Define roles, responsibilities and authorities for the operating management system and sustainability responsibilities for managers, contractors and all personnel positions followed by maintenance steps	Commanders/Directors	1 Nov 04	30 Dec 05
Develop SEMS training, awareness and competence programs	EQWG Team	1 Oct 04	30 Dec 04
Implement training programs to meet DA 30 Mar 05 milestone followed by maintenance steps	TBD	2 Jan 05	30 Mar 05
Develop a means of communicating with internal stakeholders about various aspects of the SEMS and benefits of sustainability	EQWG Team	1 Oct 04	30 Nov 04
Implement communication with internal stakeholders followed by maintenance steps	TBD	1 Dec 04	1 Dec 04
Develop a procedure for involving external stakeholders in the SEMS	EQWG Team	1 Oct 04	31 Oct 04
Implement procedure for involving external stakeholders in the SEMS followed by maintenance steps	TBD	1 Nov 04	1 Nov 04
Develop communication procedures for receiving, documenting and responding to external communication	EQWG Team	1 Oct 04	31 Oct 04
Implement external communication procedures followed by maintenance steps	TBD	1 Nov 04	1 Nov 04
Develop communication strategies that involve internal customers - visitors, family members, retirees and other FC users	EQWG Team	1 Sep 04	30 Nov 04
Implement internal customer strategies/procedures followed by maintenance steps	TBD	1 Dec 04	1 Dec 04
Determine applicability and develop procedures for communicating pertinent SEMS elements in supply, service and construction contracts	EQWG Team	1 Sep 04	30 Nov 04
Implement contract procedures followed by maintenance steps	Requestor/ACA	1 Dec 04	1 Oct 05
Develop procedures for controlling all documents required by the SEMS, including documentation of the management system itself	EQWG Team	15 Jun 04	30 Sep 04
Implement document control procedures followed by maintenance steps	All personnel	1 Oct 04	1 Oct 04
Evaluate, procure and install software with select desired features/specifications for FC requirements followed by maintenance steps (Choose SEMS Software)	EQWG, DECAM, ACA and DOIM	1 Mar 04	30 Sep 04
Update FC regulations and other procedures to ensure operations and activities associated with significant environmental, social, and economic aspects are controlled followed by maintenance steps	Regulation Proponent	1 Apr 05	30 Dec 05
Develop supply chain management, evaluation and partnership approaches	EQWG Team/Procurement Team	1 Feb 05	30 Apr 05
Implement supply chain management followed by maintenance steps	Requestor/ACA	1 May 05	1 May 05
CHECKING AND CORRECTIVE ACTION			
Create a standardized reporting system and process to simplify tracking sustainability performance and management review within the framework of the SEMS software	EQWG	15 Jun 04	30 Sep 04

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Implement process to track sustainability performance and management review followed by maintenance steps	SPPO	1 Oct 04	1 Oct 04
Develop equipment calibration and documentation procedures	Equipment Proponent/Owner	1 Oct 04	30 Jul 05
Implement calibration and documentation procedures followed by maintenance steps	Equipment Proponent/Owner	31 Jul 05	30 Sep 05
Establish and maintain procedures for addressing non-conformances, mitigating environmental and social impacts, tracking corrective and preventive actions, and evaluating effectiveness	EQWG Team	1 Nov 04	30 Apr 05
Implement non-conformance, corrective and preventive action procedures followed by maintenance steps	TBD	1 May 05	30 May 05
Formalize a root-cause analysis program to ensure true underlying causes of non-conformances are discovered, corrected, and prevented	EQWG Team	1 Apr 05	30 Jun 05
Implement root-cause analysis and communicate lessons learned followed by maintenance steps	TBD	1 Jul 05	30 Aug 05
Develop procedures for the identification, maintenance and disposition of SEMS-related records in compliance with ARIMS	EQWG Team and DOIM	15 Jun 04	30 Sep 04
Implement ARIMS procedures followed by maintenance steps	Document Proponent	1 Oct 04	1 Oct 04
Create a robust sustainability and environmental audit program using EPAS	DECAM	2 Jan 05	30 May 05
Implement EPAS audit incorporating sustainability followed by maintenance steps	EPAS Audit Team	1 Jun 05	30 Oct 05
MANAGEMENT REVIEW			
Develop procedures for top management/Command review of high-level management measures, audit findings, and a general review of the management system	EQWG	15 Jun 04	30 Sep 04
Implement management review procedures followed by maintenance steps	SEMS Action Officer and SPPO	1 Oct 04	30 Dec 04
Develop procedures for communicating the SEMS results to stakeholders	EQWG	15 Jun 04	30 Sep 04
Implement reporting procedures followed by maintenance steps	Report Proponent	1 Oct 04	30 Dec 04

TBD = To Be Determined (based on decisions and procedures)

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Table 4. SEMS Activities by Start Date

SEMS Activities	Responsible Organization/Position	Start Date	Completion Date
Formulate a mission support (business) case for sustainability	I-Team	15 Jun 04	15 Sep 04
Develop significance criteria and methodologies to identify, evaluate and prioritize the management of aspects, impacts and outcomes	A-Team	15 Jun 04	30 Sep 04
Develop procedures for identifying environmental and social aspects, impacts and significance of FC activities and for keeping the information up-to-date	A-Team	15 Jun 04	30 Sep 04
Define roles and responsibilities for SEMS implementation	I-Team	15 Jun 04	30 Sep 04
Develop procedures for controlling all documents required by the SEMS, including documentation of the management system itself	O-Team	15 Jun 04	30 Sep 04
Create a standardized reporting system and process to simplify tracking sustainability performance and management review within the framework of the SEMS software	O-Team	15 Jun 04	30 Sep 04
Develop procedures for the identification, maintenance and disposition of SEMS-related records in compliance with ARIMS	O-Team and DOIM	15 Jun 04	30 Sep 04
Evaluate, procure and install software with select desired features/specifications for FC requirements followed by maintenance steps (Choose SEMS Software)	EQWG, DECAM, ACA and DOIM (Completed)	1 Mar 04	30 Sep 04
Create awareness program for FC leadership	T-Team	15 Jun 04	30 Sep 04
Develop procedures for top management/Command review of high-level management measures, audit findings, and a general review of the management system	I-Team	15 Jun 04	30 Sep 04
Develop procedures for communicating the SEMS results to stakeholders	I-Team	15 Jun 04	30 Sep 04
Communicate the sustainability policy to all FC personnel and external stakeholders and open/maintain dialog with them on impacts and approaches followed by maintenance steps	DECAM	1 Sep 04	30 Sep 04
Implement awareness program for FC leadership followed by maintenance steps	TBD	1 Oct 04	1 Oct 04
Implement document control procedures followed by maintenance steps	All personnel	1 Oct 04	1 Oct 04
Implement process to track sustainability performance and management review followed by maintenance steps	SEMS Action Officer and SPPO	1 Oct 04	1 Oct 04
Implement ARIMS procedures followed by maintenance steps	Document Proponent	1 Oct 04	1 Oct 04
Develop communication procedures for receiving, documenting and responding to external communication	I-Team	1 Oct 04	31 Oct 04
Develop a procedure for involving external stakeholders in the SEMS	T-Team	1 Oct 04	31 Oct 04
Implement external communication procedures followed by maintenance steps	TBD	1 Nov 04	1 Nov 04
Implement procedure for involving external stakeholders in the SEMS followed by maintenance steps	TBD	1 Nov 04	1 Nov 04
Develop a procedure to integrate policy, strategic, management and annual action plans to reflect desired sustainability goals, objectives and targets, means to measure performance, responsibilities, and milestones/completion dates	I-Team	1 Oct 04	29 Nov 04
Develop communication strategies that involve internal customers - visitors, family members, retirees and other FC users	T-Team	1 Sep 04	30 Nov 04

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Determine applicability and develop procedures for communicating pertinent SEMS elements in supply, service and construction contracts	T-Team and ACA	1 Sep 04	30 Nov 04
Develop a means of communicating with internal stakeholders about various aspects of the SEMS and benefits of sustainability	T-Team	1 Oct 04	30 Nov 04
Implement communication with internal stakeholders followed by maintenance steps	TBD	1 Dec 04	1 Dec 04
Implement internal customer strategies/procedures followed by maintenance steps	TBD	1 Dec 04	1 Dec 04
Agree on roles and responsibilities for specific management programs	Cmd Grp w/ Commanders/Directors	1 Oct 04	30 Dec 04
Develop SEMS training, awareness and competence programs	T-Team and Commanders/Directors	1 Oct 04	30 Dec 04
Implement management review procedures followed by maintenance steps	SEMS Action Officer and SPPO	1 Oct 04	30 Dec 04
Implement reporting procedures followed by maintenance steps	Report Proponent	1 Oct 04	30 Dec 04
Develop strategies and processes to ensure future legal and regulatory compliance and compliance improvement	O-Team	1 Nov 04	30 Dec 04
Analyze the current business culture and any change required to achieve the organizational vision and strategy	I-Team	1 Dec 04	31 Jan 05
Implement process for ensuring legal and regulatory compliance and compliance improvement followed by maintenance steps	TBD	2 Jan 05	2 Feb 05
Develop a procedure to communicate and report organizational aspects, impacts and outcomes to relevant internal and external stakeholders (tracking and reporting procedures)	A-Team	1 Nov 04	28 Feb 05
Implement procedure to integrate plans followed by maintenance steps	TBD	1 Dec 04	28 Feb 05
Secure sufficient top-level management understanding and commitment to integrate sustainability and stakeholder engagement into core processes and decision-making followed by maintenance steps	EQWG	1 Oct 04	30 Mar 05
Implement the aspect, impact, significance procedure in order to have a prioritized list of aspects by 30 Mar 05 followed by maintenance steps	TBD	1 Oct 04	30 Mar 05
Develop/Modify a procedure for setting environmental, social and economic goals/objectives that address the Installation's significant impacts once they are defined	A-Team	2 Jan 05	30 Mar 05
Implement training programs to meet DA 30 Mar 05 milestone followed by maintenance steps	TBD	2 Jan 05	30 Mar 05
Implement strategies to align culture with organizational vision and strategy followed by maintenance steps	TBD	1 Feb 05	30 Mar 05
Develop supply chain management, evaluation and partnership approaches	O-Team/Procurement Team/ACA	1 Feb 05	30 Apr 05
Implement communication and reporting procedure followed by maintenance steps	TBD	1 Mar 05	30 Apr 05
Establish and maintain procedures for addressing non-conformances, mitigating environmental and social impacts, tracking corrective and preventive actions, and evaluating effectiveness	C-Team	1 Nov 04	30 Apr 05
Implement supply chain management followed by maintenance steps	Requestor/ACA	1 May 05	1 May 05
Create a robust sustainability and environmental audit program using EPAS	C-Team and DECAM	2 Jan 05	30 May 05
Implement non-conformance, corrective and preventive action procedures followed by maintenance steps	TBD	1 May 05	30 May 05
Identify opportunities where the organization can influence external bodies and create a plan to foster a more positive enabling environment for sustainability	I-Team	1 Apr 05	30 Jun 05

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Formalize a root-cause analysis program to ensure true underlying causes of non-conformances are discovered, corrected, and prevented	C-Team	1 Apr 05	30 Jun 05
Develop equipment calibration and documentation procedures	Equipment Proponent/Owner	1 Oct 04	30 Jul 05
Implement root-cause analysis and communicate lessons learned followed by maintenance steps	TBD	1 Jul 05	30 Aug 05
Implement process for setting objectives and targets by 30 Sep 05 followed by maintenance steps	TBD	1 Apr 05	30 Sep 05
Implement plan to influence sustainability followed by maintenance steps	TBD	1 Jul 05	30 Sep 05
Implement calibration and documentation procedures followed by maintenance steps	Equipment Proponent/Owner	31 Jul 05	30 Sep 05
Implement contract procedures followed by maintenance steps	Requestor/ACA	1 Dec 04	1 Oct 05
Implement EPAS audit incorporating sustainability followed by maintenance steps	EPAS Audit Team	1 Jun 05	30 Oct 05
Align and integrate sustainability vision, mission and policy with FC strategic plan and action plans followed by maintenance steps	SEMS Action Officer and SPPO	1 Oct 04	30 Dec 05
Define roles, responsibilities and authorities for the operating management system and sustainability responsibilities for managers, contractors and all personnel positions followed by maintenance steps	Commanders/Directors	1 Nov 04	30 Dec 05
Update FC regulations and other procedures to ensure operations and activities associated with significant environmental, social, and economic aspects are controlled followed by maintenance steps	Regulation Proponent	1 Apr 05	30 Dec 05

TBD = To Be Determined (based on decisions and procedures)

Appendix 1: Gap Analysis



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Appendix 2: EQWG Teams

1. INTEGRATION OF SUSTAINABILITY, STRATEGIC PLANNING, AND SEMS GOALS (I-Team): This group will finalize the business case, recommend roles and responsibilities for SEMS implementation, analyze the current Installation culture and any change required to achieve organizational vision and strategy. The team will determine how goals from aspects/impacts analysis will be inserted into the strategic planning process and with sustainability objectives and targets. The team will evaluate how to incorporate sustainability into position descriptions and individual performance evaluation processes. The team will also be responsible for developing the procedures for receiving, responding to, and documenting external communication as well as identifying opportunities for influencing the practice of sustainability in external agencies and businesses.

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2. AWARENESS, TRAINING AND OUTREACH (T-Team): The purpose of this group is to identify, develop, and integrate sustainability and SEMS awareness, training and outreach strategies for internal and external stakeholders into the SEMS. The T-Team will determine the level of involvement for external stakeholders in the SEMS in order to improve overall sustainability performance. The team will develop a means of communicating with internal and external stakeholders about the SEMS and benefits of sustainability. The team must also determine a process and program for providing general sustainability awareness training for leaders and all Installation personnel, including the best methods for inserting that training into existing training programs. A competence training procedure will also be developed by the team, including a means of maintaining records and tracking completion of both awareness and competence training. This team also needs to determine how to ensure and track contractor training, understanding and compliance with the SEMS.

3. ASPECTS/IMPACTS/SIGNIFICANCE ANALYSIS TEAM (A-Team): This team must build the aspects/impacts analysis procedure and forms after determining the functional level for aspects and impacts analysis. They will also need to create mechanisms or procedures for reanalysis of aspects and impacts as activities change and for setting up action plans for goals with tracking/monitoring or progress. The team will identify messages for communicating aspects, impacts and outcomes to internal and external stakeholders, including tracking and reporting procedures. The team will also review existing procedures and modify or create procedures for setting goals/objectives and targets based on significant aspects/impacts.

4. OPERATIONAL CONTROL AND DOCUMENTATION (O-Team): Because records of control of operations will ensure that significant impacts are continually addressed, this team must determine how to use the SEMS software to ensure this documentation occurs. The team will develop procedures for document control and record keeping using the ARIMS regulation. This work will include determinations of procedures to insert documentation requirements into existing procedures and how to identify, maintain, and disposition SEMS records. Development of a standardized reporting system for roll up of results of the SEMS progress for management and command review also needs to be determined within the framework of documentation procedure development. Part of 'Control' will also be to integrate the SEMS into local regulations at the Installation. This team will need to determine which regulations are most appropriate for integration and how to integrate the SEMS requirements/procedures into those regulations, Standard Operating Procedures, etc. Lastly, the team will devise and/or document an approach for ensuring visibility of future legal and regulatory compliance.

5. CORRECTIVE ACTION AND ROOT CAUSE ANALYSIS TEAM (C-Team): This team will need to develop a database and method for tracking and reporting non-conformances. This activity includes development of a root-cause analysis procedure and lessons-learned distribution to prevent non-conformances from recurring. The team will also develop a procedure for identifying and tracking preventive actions. This team also needs to set up a structure for internal auditors to begin auditing elements of the SEMS.

Appendix 3: Team Members and Responsibilities

Integration Team (I-Team)	Responsibilities	Phone	E-Mail Address
Mary Barber, DECAM	SEMS Action Officer	526-4648	mary.barber@carson.army.mil
Hal Alguire, DECAM	Team Leader	526-6210	hal.alguire@carson.army.mil
Birgitte Dodd, DECAM		526-9777	birgitte.dodd@carson.army.mil
Jerry Jones, DCA		526-8405	jerry.jones@carson.army.mil
Sherry Jackson, SPPO		526-3932	sherry.jackson@carson.army.mil
Robaire Pullicar, G4		526-5780	robaire.pullicar@carson.army.mil
Steve McCoy, DGC		526-9865	steve.mccoy@carson.army.mil
Ivan Beckman, G3		526-0818	ivan.beckman@carson.army.mil

Awareness, Training and Outreach Team (T-Team)	Responsibilities	Phone	E-Mail Address
Mark Bradbury, DECAM		526-4683	mark.bradbury@carson.army.mil
Jim Ahl, DECAM		526-4446	jim.ahl@carson.army.mil
Jeff Linn, DECAM		526-3975	jeff.linn@carson.army.mil
Birgitte Dodd, DECAM		526-9777	birgitte.dodd@carson.army.mil
Janine Hegeman	Team Leader	524-4925	janine.hegemann@carson.army.mil

Aspects/Impacts Team (A-Team)	Responsibilities	Phone	E-Mail Address
Larry Holland, DOL		526-2658	larry.holland@carson.army.mil
Ed Tebo, DECAM		524-3534	ed.tebo@carson.army.mil
Don Sullivan, DECAM		526-0979	don.sullivan@carson.army.mil
Rusty Savoy, DPTM		526-6374	george.savoy@carson.army.mil
Scott Clark, DECAM		526-1739	scott.clark@carson.army.mil
Brian Florence, DECAM		526-8005	contract-brian.florence@carson.army.mil
Jim McDermott, DECAM		526-1329	jim.mcdermott@carson.army.mil
Birgitte Dodd, DECAM	Team Leader	526-9777	birgitte.dodd@carson.army.mil

Appendix 3 (cont)

Operational Control & Documentation (O-Team)	Responsibilities	Phone	E-Mail Address
Brian Florence, DECAM		526-8005	contract-brian.florence@carson.army.mil
Jim McDermott, DECAM		526-1329	jim.mcdermott@carson.army.mil
Birgitte Dodd, DECAM		526-9777	birgitte.dodd@carson.army.mil
Hal Alguire, DECAM		526-6210	hal.alguire@carson.army.mil
Duane Gregorich, DOIM	SME	526-2107	duane.gregorich@carson.army.mil
Peter Gates, DOIM	Team Leader	526-0676	peter.gates@carson.army.mil

Corrective Action Team (C-Team)	Responsibilities	Phone	E-Mail Address
Ed Tebo, DECAM		524-3534	ed.tebo@carson.army.mil
Don Sullivan, DECAM	Team Leader	526-0979	don.sullivan@carson.army.mil
Jim Ahl, DECAM		526-4446	jim.ahl@carson.army.mil
Birgitte Dodd, DECAM		526-9777	birgitte.dodd@carson.army.mil
Jenny James, Safety		526-8044	jennifer.james@carson.army.mil
Ramon Alamo, GRM		526-1850	ramon.alamo@carson.army.mil

Appendix 4: Additional References

7th ID & Fort Carson Campaign Plan

An Integrated Framework for Sustainability Management System (SMS), Jamie MacDonald, Dalhousie University, November 4, 2001

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Fort Carson Sustainability and Environmental Management System Policy, February 16, 2005

Sustainability and Environmental Management System Gap Analysis, Fort Carson, CO, EnviroGroup Limited, October 29, 2003

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The SIGMA Project, Sustainability - Integrated Guidelines for Management, <http://www.projectsigma.com/default.asp>

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